## **WINTER 2007** NATURAL HISTORY FIELD STUDIES





NATH1195E Tuition: \$335 2 Credits

Learn about the avifauna of each continent or region. Review the factors that contribute to the climate, geography and topography of each continent or region and how they affect the distribution of birds. Study the diversity of families, the number of species, the endemic and/or unique species of each continent, and the conservation efforts being taken to preserve endangered and threatened species. Knowledge of bird classification would be helpful.

January 24 - April 4

W 7-9 p.m.

Field Trip: 3/17

NATURAL HISTORY FIELD STUDIES

Location: Woodend Sanctuary Instructor: Donald Messersmith

**Human Ecology** 

NATH2280E Tuition: \$335 2 Credits

Although existing in habitats of their own design, humans cannot escape the biological and physical constraints on energy use, food production, population and interactions with other species. Applying ecological principles, participants examine the interactions of the human population, the use of renewable and non-renewable resources, and pollution problems and solutions. **Prerequisite:** Introduction to Ecology (NATH1160E), or another ecology course.

January 23 – April 3 Tu 7-9 p.m. Field Trips: 2/10 and 3/24

Location: Woodend Sanctuary Instructor: Jane Huff **Introduction to Ecology** 

NATH1160E Tuition: \$335 2 Credits

A fundamental understanding of ecology and the physical and biological principles on which ecosystems depend is essential for any naturalist. In this course students learn to interpret the patterns and processes of nature by studying energy flow, food webs, biogeochemical cycles, population dynamics, communities, behavioral and evolutionary ecology, biodiversity, biomes and plant/animal interactions. **Prerequisite:** Biology for Naturalists (NATH1110E), or another biology course.

January 22 – April 2 M 6-8 p.m.

Field Trips: 3/3 and 3/17 Location: Capital Gallery Instructor: Gary Evans

**Introduction to Ornithology** 

NATH1118E Tuition: \$335 2 Credits

Learn about birds and their special characteristics. Study their external and internal anatomy, feather structure, plumage, special adaptations, flight, migration, courtship, mating, nesting, eggs, incubation, care of the young, habitats, ecology, behavior, conservation, evolution, classification, distribution, worldwide birds and bird-related activities.

January 22 – April 2 M Field trips: 2/3, 3/3, and 3/31 (all day)

Location: Woodend Sanctuary Instructor: Don Messersmith **Mammals** 

NATH2290E Tuition: \$335 2 Credits

Examine the characteristics, physiology, adaptations, ecology and behavior of mammals, with emphasis on species of the mid-Atlantic region. Studies include identification through analysis of skulls, study skins, tracks and other signs. Field trips include nocturnal and diurnal observation of wild mammals in their natural habitats.

January 24 – April 4 W 7-9 p.m. Field Trips: TBA

Location: Woodend Sanctuary

Instructor: TBA

Owls

NATH1165E Tuition: \$235 1 Credit

Winter is an excellent time to study owls: early sunsets and the absence of leaves on the trees make it easier to locate these fascinating birds in the field. Identify and learn the ecology of common eastern owls as well as their migratory and nesting habits and position in the food chain.

January 23 – February 13 Tu 7:30-9:30 p.m. Field Trips: 2/3 and 2/10

Location: Hidden Oaks Nature Center Instructor: Leon Nawojchik Winter Woody Plant Identification

NATH1146E Tuition: \$335 2 Credits
Expand your knowledge of winter woody plants

Expand your knowledge of winter woody plants through the study of field identification. Apply principles of plant taxonomy and use identification keys in classroom and field practice in identifying the trees and shrubs of the Central Atlantic region.

January 25 – March 29 Th 7-9:15 p.m. Field Trip: 2/10, 2/24 and 3/10 Location: Woodend Sanctuary Instructor: Cristol Fleming



For more information or to register, visit www.grad.usda.gov or call (888) 744-GRAD.

If you require information about this program, activity or facility in a language other than English (or in Braille, large print, audiotape, etc.), contact the registrar of the Graduate School, USDA at (888) 744-4723.

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